

### Lesson 4 Describing Cause and Effect



Understanding cause-and-effect relationships will help you understand how and why events happen.

**Read** A heavy storm hits, and a large tree falls. The storm is the **cause**, or the reason the tree falls. The fallen tree is the **effect**, or what happens as a result of the storm. The connection between these two events is an example of a cause-and-effect **relationship**. Understanding cause and effect can help you see how events and ideas are related.

Writers often use words such as *because*, *if/then*, *since*, *so*, *therefore*, and *as a result* to signal and explain a cause-and-effect relationship.

Read this cartoon. What cause-and-effect relationship do you see?



Henry got a balloon at the party.

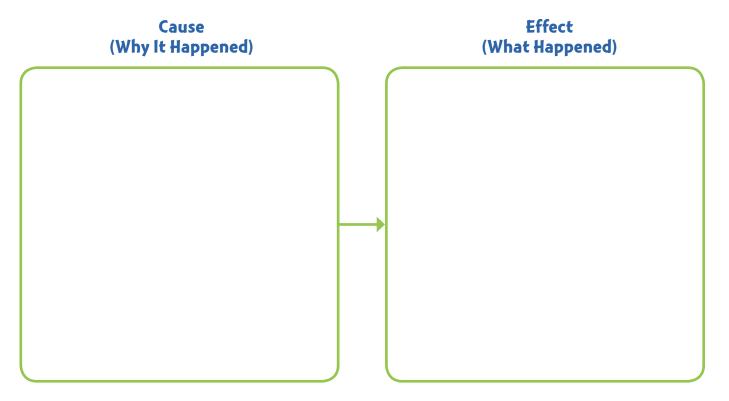


Henry blew up the balloon.



The balloon popped because Henry blew it up too much.

**Think** Look at the cartoon again. Fill in this cause-and-effect chart to tell what happened.



Write one or two sentences describing what happened. Use words such as *because, so,* or *as a result* to show cause and effect.

Talk Imagine there is a fourth box in the cartoon. What do you think the cat would do? Why? Describe that cause and effect. Use a signal word in your description.

#### **Academic Talk**

Use these words to talk about the text.

cause

- effect
- relationship



# CICLOS of Cats and Dogs by Nicole Sheffler

by Nicole Sheffler

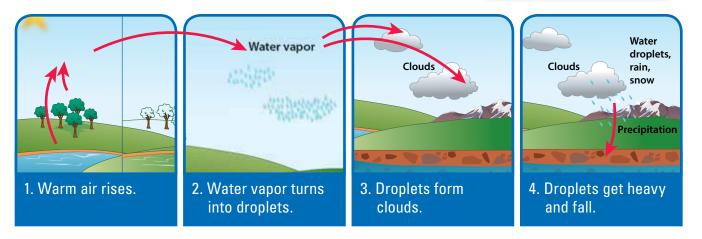
- 1 You may have heard the saying, "It's raining cats and dogs out there!" But what's really going on up in the sky? Read on to find out.
- Rain comes from clouds. But where do the clouds come from? First, 2 it's important to understand that all air contains water. This invisible water is called water vapor. When warm air rises, it cools down. Cool air can't hold as much water vapor as warm air. So the vapor grabs a ride on tiny pieces of dust in the air. The vapor forms water droplets around the bits of dust. A cloud is formed when billions of these water droplets come together.
- Inside a cloud, the water droplets move around very quickly. When 3 they move they may bump into each other. As a result, they may stick together. If they stick together, then they start to get bigger.

When they get bigger, they get heavier. Sometimes they get too heavy for the cloud to hold them. Then they fall to the ground as rain. If it's cold outside, then they fall as snow.

4 Much of this rain and snow falls all the way back down to the ground. Then the whole process starts over again.

#### **Close Reader Habits**

**Underline** words and phrases that signal cause and effect. How do they help you understand how the ideas are connected?



#### **Explore**

#### How do cause-and-effect relationships help explain how rain is formed?



#### **Think**

1 Finish this chart to show cause-and-effect relationships from the article about rain.

When you read, pay attention to how and why things happen. This will help you spot causes and effects.

Cause

Warm air rises.

The water vapor attaches itself to dust to form droplets.

Billions of droplets come together.

The droplets stick together and get heavier.

#### Talk

Work with a partner to explain each cause-and-effect relationship from the chart. Use signal words to show how the ideas are connected.



#### Write

**Short Response** What happens inside a cloud that causes rain or snow to fall? Use signal words to explain the cause-and-effect relationship. Use the space provided on page 58 to write your answer.

**HINT** Begin by making a list of the key details in paragraph 3 of the article.



## Frozen Deserts

by Heidi Deal, AppleSeeds

- In spite of our image of deserts, some are freezing cold and covered with ice and snow. Cold deserts exist all over the world. They are found in Asia, Africa, South America, China, and even the United States.
- The coldest place on Earth, Antarctica, is considered a desert. It gets very little snow or rain. When it snows, the snow never melts. Instead, it forms ice sheets that build up over time. This creates ice shelves and icebergs. It's too cold for plants. Only a few mosses and algae grow there. And people can't live there for long periods of time.
- Another frozen desert, the Gobi, reaches from Mongolia to China. It is still expanding. The Gobi Desert is called a rain shadow desert. A large mountain range, the Himalayas, blocks the wet weather from reaching the area. Heavy winds whip through the Gobi plains. (That may explain why there's no sand there. Instead, the landscape is mostly bare rock with little plant life.) Temperatures are extreme. It isn't covered in

ice like Antarctica is. But the Gobi can get as cold as 40° F below zero in the winter. In the summer, it can get as hot as 122° F.

4 Brrrr. It's the desert, but I'm freezing!

#### **Close Reader Habits**

**Underline** sentences that show the effects of extreme cold in Antarctica.

#### **Think**

1 This question has two parts. Answer Part A. Then answer Part B.

#### Part A

In Antarctica, why do ice sheets build up over time?

- A because Antarctica gets very little snow or rain
- **B** because when it does snow, the snow doesn't melt
- **C** because there are few plants to stop the ice from forming
- **D** because there aren't enough people to break up the ice

#### Part B

What are **two** other effects of the extreme cold in Antarctica?

- **A** Ice shelves and icebergs form.
- **B** The plants become tougher and stronger.
- **C** It snows all the time.
- **D** Strong winds blow away any snow.
- **E** People can't stay there long.
- **F** There is no snow.

#### Talk

Reread paragraph 3 and discuss with a partner what the Gobi Desert looks like. What is one possible reason that there is no sand in the Gobi Desert?



#### Write

**Short Response** Why is the Gobi Desert a desert? Explain at least two cause-and-effect relationships that might have caused this. Use the space provided on page 59 to write your answer.



Remember that one cause can have many effects, and one effect may have many causes.

HINT What effect do the Himalayas have on the area where the Gobi Desert formed?